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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,785

06/17/2005

Masashi Shirai

AOK-05-1160PCT-US

4937

35811

7590

04/17/2006

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EXAMINER

NAGUBANDI, LALITHA

ART UNIT

PAPER NUMBER

1621

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/539,785

Applicant(s)

SHIRAI ET AL.

Examiner

Lalitha Nagubandi

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date june/17/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

Detailed Office Action

Status of Claims

Claims 1-15 are pending. Claims 1-15 are considered for examination in this office action.

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

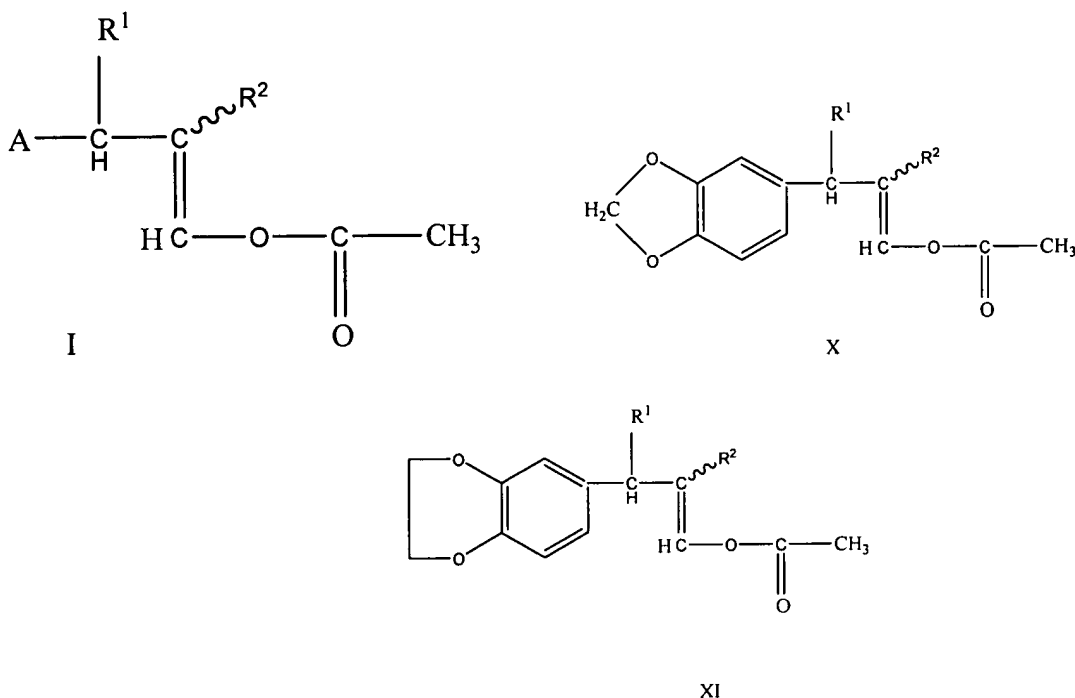
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1- 7 and 12 - 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Scriabine (Bull. Soc. Chim. France 1961,p1195 – 1198).

Applicants claim a process for producing 1-1cetoxy-3-(substituted phenyl) propenes of formula (I) 1-acetoxy-3- (3,4-C1 to C2 alkylene dioxyphenyl) propenes of

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formula (X) and (XI), in presence of Titanium tetrachloride and Boron trifluoride etherate.



Scriabine teaches the preparation of the instant products starting from aromatic hydrocarbons and alkenylidene diacetate in presence of Titanium tetrachloride and Boron trifluoride etherate under an inert atmosphere, thus anticipating claims 1-8 and 12-15. (See page no. 1194, paragraph 6, and page no. 1197, condensation method B).

Scriabine teaches a molar ratio of the aromatic hydrocarbon to alkenylidene diacetate compound of 1:1 and or >1:1. (See page no. 1197, para 4 of the condensation:

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method B). Further the art teaches molar ratio of the catalyst in agreement with the present embodiment, thus anticipating claims 5 and 6 of the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scriabine (US Patent 3,023,247, Feb.27, 1962) and Evans et al (JACS 1990, 112, 866-868).

Applicants claim a process for producing 1-acetoxy-3-(substituted phenyl) propenes of formula (I) 1-acetoxy-3- (3,4-C1 to C2 alkylene dioxyphenyl) propenes of formula (X) and (XI), in presence of Titanium tetrachloride and Boron trifluoride etherate. Further, it is claimed that the triflate and halogenated compounds of and lanthanoid elements of atomic numbers 58 and 66 to 71 are selected from the group consisting of triflates, halides of Tin, and Ytterbium etc.

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Scriabine teaches a process for the formation of acetoxy-3- (3,4-C1 to C2 alkylene dioxyphenyl) propenes in presence of Titanium tetrachloride and Boron trifluoride etherate (See column 1, lines 60-70 of US Patent 3,023,247, Feb.27, 1962). Evan et al teach (see page 866, Table 1) the use of various triflates and the use of titanium tetrachloride.

Scriabine does not teach the use of the other triflates and Evans et al uses the Tin triflates and Titanium halides in the formation of other organic compounds. However, one of ordinary skill in the art would have been motivated to use various triflates and Lewis acids in order to carry out the condensation reaction between an aromatic hydrocarbon and an 2-alkenylidene diacetate as in the instant application.

Conclusion

Claims 1-15 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lalitha Nagubandi whose telephone number is 571 272 7996. The examiner can normally be reached on 6.30am to 3.00pm.

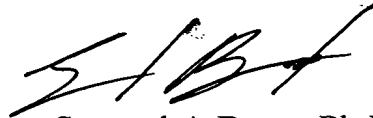
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571 272 0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lalitha Nagubandi
Patent Examiner
Technology Center 1600

April 11th, 2006.

A handwritten signature in black ink, appearing to read 'SABarts', is positioned above the printed name.

Samuel A Barts Ph.D.

Primary Patent Examiner
Technology Center 1600